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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,190	12/19/2001	James L. Baggot	KCX-277 (12716)	6432

7590

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EXAMINER

HUG, ERIC J

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 04/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/025,190

Applicant(s)

BAGGOT ET AL.

Examiner

Eric Hug

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 1-20 and 32-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other:

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-20, drawn to a process for producing a paper product and to a process for producing a ply-bonded product, classified in class 162, subclasses 117 and 132.
- II. Claims 21-31, drawn to an embossed paper product, classified in class 428, subclass 156.
- III. Claims 32-39, drawn to a multi-ply paper product and a method of perforating and attaching a plurality of pulp fiber plies, classified in class 162, subclass 114 and class 428, subclass 137.
- IV. Claims 40-46, drawn to an apparatus for perforating, glassining, and attaching two or more paper plies, classified in class 162, subclass 362.

The inventions are distinct, each from the other because of the following reasons:

Inventions I/II and III/IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, Inventions I/II result in embossed patterned webs. Inventions III/IV result in a perforated multi-ply web. The inventions have different effects (different products) and utilize different means for obtaining the products, thus are not capable of use together.

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process. For example, the embossed paper product can be made by sandwiching the web between two embossing fabrics, or by pressing between two patterned press plates, or by pressing with an embossing fabric against a backing roll.

Inventions III and IV are related as process/product made and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process/product as claimed can be practiced/made by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice/make another and materially different process/product. (see MPEP § 806.05(e) and (MPEP § 806.05(g))). In this case, the process as claimed can be practiced by another materially different apparatus and the product as claimed can be made by another and materially different apparatus. For example, the perforating apparatus can comprise a pair of perforating/embossing rolls, or can comprise a vertically moving punch plate, or can comprise a perforating/embossing fabric arranged to form a nip with a backing roll.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, and the search for Group II is not required for Groups I, III, and IV, restriction for examination purposes as indicated is proper.

During a telephone conversation with Christina L. Mangelsen on March 19, 2003 a provisional election was made to prosecute the invention of III, claims 21-31. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-20 and 32-46 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to non-elected inventions.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 21-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regards to the basis weight range of 6 lb/ream to 70 lb/ream, this is indefinite because one ream is defined differently for different types of paper. The standard definition for one ream of paper is 500 sheets cut to the basic size for the particular grade of paper being manufactured. A ream can be between 1000-3300 square feet depending on the grade. See the reference "Basis Weight and Grammage Conversion Tables" that is provided with this office action, particularly the information on pages 1 and 8.

For examination purposes, a ream size will be based on the particular type of paper disclosed by the references.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 21-26, 28, and 30-31 are rejected under 35 U.S.C. 102(b) as being anticipated by McNeil et al (US 6,030,090). McNeil discloses a tissue paper of cellulose fibers having glassined embossments provided by passing the paper through the nip of a patterned roll and an anvil roll, both which can be optionally heated. The paper is made of cellulose fibers, and may be either a single ply or two plies. The patterned is comprised of repeating shapes. The pattern land area is between 2-20 percent of the total area of the patterned roll (column 7, lines 53-55). The paper given in the Examples has a basis weight of 18 lbs per 3000 square feet.

3. Claims 21-26 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Palmer et al (US 3,323,983). Palmer discloses a method of embossing and bonding together multiple plies of a creped tissue made of cellulose fibers. The plies are embossed and bonded together by passing them between embossing rolls having a prescribed pattern. The embossing surfaces apply a pressure and sliding motion (frictional heat) sufficient to plasticize the fibers and provide

fiber-to-fiber bonding, thereby joining the plies together (column 4, lines 14-44). The basis weight of the tissue is 3.5-15 lb/ream (2880 square foot basis).

4. Claims 21, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Ciaccia et al (US 4,257,842). Ciaccia discloses an embossed wallpaper sheet produced from up to 90% cellulose fibers and at least 10% thermoplastic polymer fibrils. The sheet is heated and embossed to impart a pattern. The heat softens or melts the thermoplastic to provide bonding sites for the embossed regions. Examples are given for sheets of 150g/m<sup>2</sup> basis weight. This is equivalent to 30.72 lb/ream based on 1000 sq. ft.

5. Claims 21, 23-26, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Gresham et al (US 3,377,224). Gresham discloses a method of embossing and fixing together multiple plies of a thin lightweight creped tissue made of cellulose fibers. The plies are embossed and bonded together by passing them between embossing rolls having a prescribed pattern. The embossing unit applies pressure sufficient to provide fiber-to-fiber bonding and interlayer bonding (column 4, lines 53-71). The basis weight of the tissue is 4.5-7.5 lb/ream (3000 square foot basis).



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over McNeil et al (US 6,030,090) in view of Salman et al (US 6,077,390). McNeil discloses the embossed paper described above for use as a bathroom tissue, and teaches that embossing provides absorbency, but McNeil does not explicitly disclose the desired degree of absorbency. Salman discloses an embossed tissue paper, suitable for a bathroom tissue and states that is it typical for such a tissue to have an absorbency between 5-9 grams water per gram of fiber. Therefore, at the time of the invention, it would have been obvious to one skilled in the art to make the paper of McNeil having an absorbency of at least 5 grams water per gram of fiber to be suitable as a bathroom tissue.

***Claim Rejections - 35 USC § 102/103***

7. Claims 21, 23-26, and 28 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over by Hollmark et al (US 6,454,905). Hollmark discloses a method of producing impulse dried paper with a three-dimensional pattern of alternating raised and recessed portions. The paper is a soft high bulk paper such as toilet paper or paper towels, and can be made of all cellulose fibers (column 5, lines 42-51), and can be made having several layers (column 6, lines 52-59). A wet paper web is simultaneously dried and

imparted with a pattern by passing it through at least one press nip having a heated roll. The pattern may be on the heated roll itself or on a patterned wire or belt. A softening or melting agent can be added to the web prior to passing the web through the nip. The added agent serves to reinforce the patterned structure in the paper web by providing increased bonding sites (column 5, lines 13-30).

With respect to the claimed basis weight, Hollmark discloses a tissue paper but does not explicitly disclose the basis weight. However, it would be reasonable to expect the tissue of Hollmark to be within the claimed basis weight range of about 6-70 lbs/ream (equivalent to 6-70 lbs/3000 sq ft. for tissue), or at the time of the invention it would have been obvious to one skilled in the art that the tissue of Hollmark falls within the claimed basis weight range of about 6-70 lbs/ream, because commercial tissue paper falls well within this basis weight range.

8. Claims 21-26 and 28-31 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lee et al (US 3,625,791). Lee discloses a cohesive multi-ply tissue whereby the plies are moistened and joined together in an embossing nip having a prescribed pattern. The embossing is performed to crush the individual fibers and cause them to lock together in a glassine-type attachment (column 5, lines 34-37). The embossing may be performed with any one of a number of patterns (column 3, lines 24-25) such as the discrete diamond pattern in Figure 2 or patterns comprising straight parallel lines or lines that intersect in a diamond pattern (a reticulated pattern) (column 6, lines 35-37).

With respect to the claimed basis weight, Lee discloses a tissue paper but does not explicitly disclose the basis weight. However, it would be reasonable to expect the tissue of Lee

to be within the claimed basis weight range of about 6-70 lbs/ream (equivalent to 6-70 lbs/3000 sq ft. for tissue), or at the time of the invention it would have been obvious to one skilled in the art that the tissue of Lee falls within the claimed basis weight range of about 6-70 lbs/ream, because commercial tissue paper falls well within this basis weight range.

With respect to the surface area of the pattern, it is apparent from Figure 2 that the diamond pattern comprises between 5-30% of the total surface area.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Watanabe et al (US 4,166,758) discloses a matted transparent paper obtained by calendering with a heated embossing roll having finely engraved reliefs.

Duvall (US 2,803,188) discloses an embossed coated fiberboard whereby the board is embossed under heat to provide for plasticized bonding areas in the regions of high pressure.

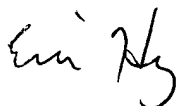
Makin (US 4,760,239) discloses applying an embossed "pseudo watermark" to a paper whereby the mark is made translucent through application of heat.

Art Unit: 1731


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 703 308-1980. The examiner can normally be reached on Monday through Friday, 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0651.



jeh  
March 25, 2003



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